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**WASTE PITS 3 AND 5 AND CLEARWELL  
STABILITY ANALYSIS REPORT**

**DOCUMENT DATE 01-07-92**



**Department of Energy**  
**Fernald Environmental Management Project**  
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Mr. James A. Saric, Remedial Project Director  
U.S. Environmental Protection Agency  
Region V - 5HR-12  
230 South Dearborn Street  
Chicago, Illinois 60604

Mr. Graham E. Mitchell, DOE Coordinator  
Ohio Environmental Protection Agency  
40 South Main Street  
Dayton, Ohio 45402-2086

Dear Mr. Saric and Mr. Mitchell:

**WASTE PITS 3 AND 5 AND CLEARWELL STABILITY ANALYSIS REPORT**

- References:
- 1) Letter, DOE-2118-91, J. R. Craig to G. E. Mitchell, "Waste Pit Berms - Status Update," dated August 28, 1991
  - 2) Letter, DOE-1436-91, J. R. Craig to G. E. Mitchell, "Concerns Regarding Pit 5 Berm," dated May 30, 1991
  - 3) Letter, G. E. Mitchell to J. R. Craig, "Concerns About Pit 5 Berms," dated April 9, 1991
  - 4) Letter, DOE-1003-91, J. R. Craig to C. A. McCord and G. E. Mitchell, "Waste Pit Berms," dated March 27, 1991

Enclosed for you information is the Waste Pits 3 and 5 and Clearwell Dikes Stability Analysis Report. This stability analysis was conducted as identified in the referenced letters.


To accomplish the dike evaluation, three activities were performed. First, a field investigation of the subsurface soil and groundwater conditions in and around the dikes was performed. The second activity consisted of geotechnical laboratory testing of soil samples obtained during the field investigation. Finally, the data from the field investigation and laboratory testing were utilized in a computer model to evaluate the potential for slope failure.

The stability analyses determined that the dikes are structurally stable and the potential for structural slope failure occurring is very low.

The overall results of the evaluation indicated that there is no immediate need to remove the contents of the pits based on the current structural integrity of the dikes. Recommendations have been made to continue periodic visual inspections and to initiate semi-annual verification surveys of the dikes in order to monitor structural integrity.

If you or your staff have any questions concerning this stability analysis, please contact Oba Vincent, of my staff, at FTS 774-6937 or (513) 738-6937.

Sincerely,

  
Jack R. Craig  
Fernald Remedial Action  
Project Manager

FO:Vincent

Enclosure: As Stated

cc w/o encl.:

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